AMENDMENTS TO THE CLAIMS

Please amend claims 1-2, 4-6, 12, 17-18, 23, and 28-29 and cancel claims 10, 13, 16, 22, and 26 without prejudice so that the claims read as follows:

1. (Currently Amended) A method of transmitting a stream of data, comprising:

(a) dividing the stream of data into a first substream and a second substream;

(b) transmitting the first substream in a first data channel;

(c) transmitting the second substream in a second data channel; and

~~(d) prior to step (b), inserting a first marker signal in the first substream.~~

(d) periodically interspersing one or more training sequences into the first substream, wherein the one or more training sequences comprise a first marker signal and wherein the one or more training sequences are interspersed in the first substream at an interval corresponding to a frequency of the stream of data.

2. (Currently Amended) The method of claim 1, further comprising receiving the first substream and detecting the first marker signal in at least one of the one or more training sequences ~~therein~~ to identify the first substream.

3. (Original) The method of claim 2, further comprising reassembling the stream of data from the first and second substreams on the basis of the detected first marker signal.

4. (Currently Amended) The method of claim 2, further comprising:

~~prior to step (c), inserting a second marker signal in the second substream.~~

periodically interspersing one or more additional training sequences into the second substream, wherein the one or more additional training sequences comprise a second marker signal and wherein the one or more additional training sequences are interspersed in the second substream at an interval corresponding to a frequency of the stream of data.

5. (Currently Amended) The method of claim 4, further comprising receiving the second substream and detecting the second marker signal in at least one of the one or more additional training sequences ~~therein~~ to identify the second substream.

6. (Currently Amended) The method of claim 1, further comprising:

~~prior to step (c), inserting a second marker signal in the second substream.~~

periodically interspersing one or more additional training sequences into the second substream, wherein the one or more additional training sequences comprise a second marker signal and wherein the one or more additional training sequences are interspersed in the second substream at an interval corresponding to the frequency of the stream of data.

7. (Original) The method of claim 6, wherein the first and second marker signals are respective comma-sync characters.

8. (Original) The method of claim 1, wherein the first marker signal is selected from the group consisting of comma-sync even characters and comma-sync odd characters.

9. (Original) The method of claim 1, wherein the first substream includes first half-words of each word of the stream of data and the second substream includes second half-words of each word of the stream of data.

10. Canceled.

11. (Original) The method of claim 1, wherein the stream of data is encoded in accordance with an 8b/10b code.

12. (Currently Amended) A method of transmitting a stream of data, comprising:

dividing the stream of data into a plurality of substreams;

transmitting the substreams in respective data channels; and

~~prior to the transmitting step, inserting a respective marker signal in at least n minus one of the substreams, wherein n equals the number of substreams.~~

periodically interspersing one or more training sequences into at least n minus one of the substreams, wherein n equals the number of substreams, wherein the one or more training sequences comprise a marker signal and wherein the one or more training sequences are interspersed in at least n minus one of the substreams at an interval corresponding to the frequency of the stream of data.

13. Canceled.

14. (Original) The method of claim 12, further comprising receiving the transmitted substreams and detecting the marker signal in at least n minus one of the received substreams to identify at least n minus one of the received substreams.

15. (Original) The method of claim 14, further comprising reassembling the stream of data from the received substreams on the basis of the detected marker signals.

16. Canceled.

17. (Currently Amended) A data communication apparatus, comprising:

a transmitter;

a receiver;

a first data channel connecting the receiver to the transmitter; and

a second data channel connecting the receiver to the transmitter;

wherein the transmitter operates to:

divide a stream of data into a first substream and a second substream;

~~insert a first marker signal in the first substream;~~

periodically intersperse one or more training sequences in the first substream, wherein the one or more training sequences comprise a first marker signal and wherein the one or more training sequences are interspersed in the first substream at an interval corresponding to a frequency of the stream of data;

transmit the first substream to the receiver via the first data channel, the transmitted first substream including the inserted ~~first marker signal~~ one or more training sequences; and

transmit the second substream to the receiver via the second data channel.

18. (Currently Amended) The data communication apparatus of claim 17, wherein the transmitter further operates to ~~insert a second marker signal in the second substream~~ periodically intersperse one or more additional training sequences into the second substream, wherein the one or more additional training sequences comprise a second marker signal and wherein the one or more additional training sequences are interspersed in the second substream at an interval corresponding to a frequency of the stream of data.

19. (Original) The data communication apparatus of claim 18, wherein the receiver operates to detect the first and second marker signals in the first and second substreams to identify the first and second substreams.

20. (Original) The data communication apparatus of claim 17, wherein the receiver operates to detect the first marker signal in the first substream to identify the first substream.

21. (Original) The data communication apparatus of claim 20, wherein the receiver operates to reassemble the stream of data from the first and second data streams on the basis of the detected first marker signal.

22. Canceled.

23. (Currently Amended) A data communication apparatus, comprising:

a transmitter;

a receiver; and

a plurality of data channels connecting the receiver to the transmitter;

wherein the transmitter operates to:

divide a stream of data into a plurality of substreams;

~~insert a respective marker signal in at least n minus one of the substreams, wherein n equals the number of substreams;~~

periodically intersperse one or more training sequences into at least n minus one of the substreams, wherein n equals the number of substreams, wherein the one or more training sequences comprise a marker signal and wherein the one or more training sequences are interspersed in at least n minus one of the substreams at an interval corresponding to the frequency of the stream of data; and

transmit each of the substreams in a respective one of the data channels.

24. (Original) The data communication apparatus of claim 23, wherein the receiver operates to receive the transmitted substreams and to detect a marker signal in at least n minus one of the received substreams.

25. (Original) The data communication apparatus of claim 24, wherein the receiver further operates to reassemble the stream

of data from the received substreams on the basis of the detected marker signals.

26. (Canceled).

27. (Original) The data communication apparatus of claim 23, wherein each of the plurality of data channels includes a respective optical fiber.

28. (Currently Amended) A method of transmitting a stream of data, comprising:

dividing the stream of data into a plurality of substreams, a first of the substreams including first half-words of each word of the stream of data and a second of the substreams including second half-words of each word of the stream of data;

transmitting the substreams in respective fiber optic data channels;

~~prior to the transmitting step, inserting a respective marker signal in at least n-minus one of the substreams, wherein n equals the number of substreams;~~

periodically interspersing one or more training sequences into at least n minus one of the substreams, wherein n equals the number of substreams, wherein the one or more training sequences comprise a marker signal and wherein the one or more training sequences are interspersed in at least n minus one of the substreams at an interval corresponding to the frequency of the stream of data;

receiving the transmitted substreams and detecting ~~a~~ the marker signal in the one or more training sequences in at

least n minus one of the received substreams to identify at least n minus one of the received substreams; and

reassembling the stream of data from the received substreams on the basis of the detected marker signals.

29. (Currently Amended) A data communication apparatus, comprising:

a transmitter;

a receiver; and

a plurality of fiber optic data channels connecting the receiver to the transmitter;

wherein the transmitter operates to:

divide a stream of data into a plurality of substreams, a first of the substreams including first half-words of each word of the stream of data and a second of the substreams including second half-words of each word of the stream of data;

~~insert a respective marker signal in at least n minus one of the substreams, wherein n equals the number of substreams;~~

periodically intersperse one or more training sequences into at least n minus one of the substreams, wherein n equals the number of substreams, wherein the one or more training sequences comprise a marker signal and wherein the one or more training sequences are interspersed in at least n minus one of the substreams at an interval corresponding to the frequency of the stream of data; and

transmit each of the substreams in a respective one of the data channels; and

wherein the receiver operates to:

receive the transmitted substreams and to detect ~~a~~ the marker signal in the one or more training sequences in at least n minus one of the received substreams; and

reassemble the stream of data from the received substreams on the basis of the detected marker signals.